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Red-Cockaded  
Woodpeckers of  
The Francis Marion  
National Forest



## ■ **Description**

The red-cockaded woodpecker is about 7 inches long, slightly larger than a bluebird. Its back and head are black and its cheek is white. It also has numerous small white spots arranged in horizontal rows on its back. Males and females look almost alike, but males have a small red streak above the cheek. This red streak, for which the bird is named, is rarely seen and then only with field glasses or telescope in bright sunlight. Males that are less than a year old have a small patch of red feathers on the very top of the head until fall. The patch eventually molts and the red feathers are replaced by feathers that match the other, plainer feathers on the bird.

## ■ **Social Organization**

The red-cockaded woodpecker has an advanced social system. It lives in a group called a clan. The clan may have two to nine birds, but there is never more than one breeding pair. Young birds frequently stay with their parents for several months. One unusual aspect is that the clan often contains "helpers" or males from an earlier generation that help the parents feed young birds in the tree cavity (the hole in which the woodpeckers live).

## ■ **The Colony**

A clan nests and roosts in a group of cavity trees called a colony. The colony may have from one cavity tree to a dozen. But the trees are used only by one clan. Typically, within any colony, some cavities are finished and in use. Some are still under construction. And some have been abandoned.

The major animals that compete with red-cockaded woodpeckers for their cavities are bluebirds; red-bellied, red-headed, and pileated woodpeckers; and flying squirrels. These other woodpeckers often enlarge the red-cockaded woodpecker's cavity and take it over.

## ■ **Nesting Behavior**

Red-cockaded woodpeckers nest between late April and July. Females usually lay two to four eggs in the breeding male's roost cavity. The eggs hatch in 10 to 12 days. Clan members take turns incubating eggs during the day, and the breeding male stays with the eggs at night.

## ■ **Feeding Behavior**

The members of a clan spend much of the day looking for food as they travel about their territory. Most searching is concentrated on trunks and limbs of live pine trees. The birds peel the bark to pick up insect eggs and larvae.

▼ **Forest Service researchers developed an artificial wooden cavity (top) to replace tree cavities that the endangered woodpeckers normally construct over a period of months or years. A Forest Service employee (bottom) inserts the cavity into a tree. An alternate method of drilling a new cavity, developed by North Carolina State University, also is being utilized successfully to house the red-cockaded woodpeckers.**



### ■ **Cavity Construction**

Red-cockaded woodpeckers are the only birds that make nesting and roosting cavities in live southern pines, a process that takes months and sometimes years to complete. The most intensive excavation work occurs on summer mornings after the young leave their nest.





### ■ ***Cavity Maintenance***

The birds chip numerous small holes through the bark near the cavity entrance, permitting sap to flow and coat the trunk. From a distance, this white sap looks like a candle, a key feature identifying a woodpecker colony. Researchers think that this sap provides greater protection from predators, particularly snakes that have no trouble climbing pine trees that are not coated with the sticky sap.

## **Habitat Requirements**

Cavities are rarely found in trees less than 30 to 40 years old, and the majority of cavity trees are twice that old. Most cavity trees on the Francis Marion were over 90 years old when Hurricane Hugo struck.

The colony site, or stand of trees containing and surrounding the cavity trees, is typically a mature, open or parklike, pine stand. The Forest Service frequently burns away underbrush in these stands to maintain the habitat conditions woodpeckers need.

Adequate foraging habitat is also vital to red-cockaded woodpeckers. Good foraging habitat consists of pine stands with trees 9 inches and larger in diameter. The acreage of foraging habitat needed by a clan varies with the habitat quality—ranging from 100 acres of pine in prime areas to several hundred acres where habitat conditions are not ideal.

## **Hugo's Impact on Red-cockaded Woodpeckers**

Hurricane Hugo felled most of the trees over 9 inches in diameter on about 100,000 acres of the Francis Marion. Forest Service biologists revisited all of the known colony sites – both active and inactive. Hugo destroyed 87 percent of all the active colonies. Of those, 48 percent had lost all of their cavities. Between 50 and 60 percent of all the birds' foraging habitat was also lost. However, 76 percent (363) of all colonies still had some birds present, though often in reduced numbers. Currently, 233 colonies have one or more red-cockaded woodpeckers and another 130 colonies have no cavity trees, but have one or more woodpeckers. Only three colonies were undamaged.

To enhance chances for a rapid recovery, the Forest Service's Southeastern Forest Experiment Station used two techniques to create artificial cavities: inserts and drills. The Station developed a method using a chain saw to prepare an opening for a predrilled cavity block. North Carolina State University developed a method in which an electric- or gasoline-powered drill creates a cavity in the tree. Woodpeckers have quickly moved into both types.

Hugo created the right conditions for raging wildfires, as well as major insect and disease outbreaks. Timber salvaging is the main tool available to reduce chances for another catastrophe. Fortunately, your Francis Marion National Forest contains extensive younger pine plantations that were not felled by Hugo. This young timber provides a head start on future woodpeckers habitat.

▼ *The dawn hours on Francis Marion National Forest revealed a dismal scene of destruction, after Hurricane Hugo leveled most of the forest. Francis Marion National Forest is the site of the most concentrated group of the endangered red-cockaded woodpeckers in the world. The Forest Service is striving to reconstruct a viable habitat for the woodpeckers that lost about 87 percent of their living space during the storm on September 21, 1989.*



**T**he national forests in the South contain about 60 percent of the red-cockaded woodpeckers in the world. In fact, these birds were once common in mature southern pine forests. Now, however, this woodpecker is listed as “endangered,” primarily due to habitat loss. As habitat losses continue on private lands, Forest Service efforts to protect this species on public lands becomes increasingly important.

Before Hurricane Hugo hit on September 21, 1989, the Francis Marion National Forest contained the world’s most concentrated population of red-cockaded woodpeckers, estimated at 477 colonies. But Hugo dealt a severe blow to all forms of wildlife. Especially hard hit were these beautiful and unusual birds, which require old, live pine trees.





# Red-Cockaded Woodpeckers of The Francis Marion National Forest

**SOUTH CAROLINA**



## ■ ***Looking for Woodpeckers***

Many forest visitors want to see red-cockaded woodpeckers in the Francis Marion National Forest. To find a colony site or observe the bird's habitat and possibly see a red-cockaded woodpecker, contact one of the ranger stations listed below.

Once a colony site is located, look for the marked trees. Individual trees where the birds live are painted with two white bands. The best time to view a red-cockaded woodpecker within its colony is early morning or late afternoon. Throughout the rest of the day you might see birds foraging in or around the colony site.

## ■ ***Visiting the Forest***

Hurricane Hugo blocked all the roads and trails and closed all the recreation areas on the Francis Marion National Forest. Although the principal roads have been opened, many trails and recreation sites are still closed. Visitors may contact the Forest Service offices in McClellanville or Witherbee for information and for the latest status on trails and recreation facilities. We hope you will enjoy your visit.

■ **Wambaw Ranger District**  
USDA Forest Service  
S. Pinckney Street  
Box 788  
McClellanville, SC 29458  
Telephone (803) 887-3257

■ **USDA Forest Service**  
Witherbee Ranger District  
HC 69, Box 1532  
Moncks Corner, SC 29461  
Telephone (803) 336-3248



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Recreation Guide  
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